

Strategies on natural forest protection of collective forest area in minority nationality community in China

—A case of the forest resource management in datu village

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Abstract: In the recent 20 years, it is a trend that forest will be distributed to villagers to manage in the world. Also in China, "forestry three determinations" has been carried out since 1980, and many new forestry devolutions have been put forward to and come into being. To face the fact of overusing up natural forest to result in the deterioration of ecology environment, the strategy of natural forest protection project (NFPP) is raised after the heavy flood in 1998. Now, it is paid close attention to systematically study to carry out the strategies of NFPP in collective forest area, especially in the community of minority nationalities. Based on the case of forest resource management in Datu Miao Village, the experience of its forest management in the past is analyzed and the strategies of NFPP in collective forest area are put forward.

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Introduction

Forest is a kind of multi-function resource that can be sustainably utilized, but some problems, such as insufficiency of timber yield, soil erosion, climate imbalance in part district etc., often aroused because of incorrect use and management of natural resources. In order to develop the forestry, lots of forestry policies have been issued and carried out. Various types of forest resources management have been aroused, especially collective forest areas in south China. However, why different efficiencies, good, bad and worse, even to result in the decrease of forest resource sharply and the deterioration of ecological environment, existed, people continuously think their past actions for forest management and utilization after heavy flood in 1998, and meanwhile are also seeking the way to improve. Under the background, carrying on Natural Forestry Protection Project (NFPP) in major district is put forward. In this paper with the case, Datu Miao Village, successful experi-

ence for its past forest management is analyzed and then the strategies of NFPP in collective forest area are probed.

Survey of Datu village

Datu village is located in Jiarong township of Libo county, Guizhou Province, and includes 5 natural hamlets, Datu, Daijia, Heyin, Penshang and Xiaoao. Total area of Datu Village is 2 507 hm², of which 1 663 hm² are for forestry land, 844 hm² for other land. There are 1 627 hm² of forested land and 36 hm² undeveloped forest land (data from the secondary forest inventory of Libo county in 1994).

Up to 1998, Datu had 175 households, with population of 745, 480 males and 265 females, and all people are Miao nationality. Villagers received less education. There are only 2 people with high school education level, 41 people with junior middle school level and 420 with primary school level. Most of older people could not fluently speak Chinese, and most younger and less educated adults could not smoothly exchange their ideas in Chinese.

Types of forest resource management

Although according to related laws, ownership of forestland belongs to the collective, many types of forest management existed in Datu (Luo et al. 1999).

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Major types are as follows:

Collective forest

Collective forest implies the forest and forested land that have not been allotted to households to manage since 1980, which were composed of natural broad-leaf forest and coniferous-broadleaved mixed forest. Local community uses them as scenic forest, geomantic forest, water source protection forest and fuel-wood forest. For example, in the mountain north to Heyin hamlet, there is a stretch of 10-hm² geomantic forest, as it is also used water source protection forest, so cutting the tree and branches of the forest are strictly forbidden.

Group forest farm

In Datu, group forest farm includes 7-hm² forest for villager committee, 10 hm² for the Party, 5 hm² for the Youth league and 4.5 hm² for women committee. Trees are planted by the members of each group which possess the right of using land, and ownership for trees and income.

United household afforestation

The form for united household afforestation is among persons or between person and group. They planted mainly Chinese fir as commercial forest on base forestland. They developed barren hill, according to voluntary, in the form of stock system or simple cooperation. In the form of stock system, forested land, labor force, capital and technique are converted into stocks, and investment and income are distributed according to the stocks. Land as stock generally accounts for 20% of all stocks.

Responsible mountains forest and base forest and social afforestation

Responsible mountain forest includes natural forest and artificial forest. Most of natural broadleaf forest has been allotted to villagers to manage, mainly as fuel-wood forest. Artificial forest is mainly Chinese fir and economic forest. It is the most general type that villagers afforest on their responsible mountain with forms of base planting and social planting.

Afforestation on barren hill by contract

The households who have less responsible mountain or want to afforest, can contract responsible mountain of other households to afforest (in the same hamlet or other hamlets). During the period of contract, contractors manage the mountain and possess the ownership for trees and can transfer the forestland. Generally speaking, lease period is 20-50 years, and pay the expenses of land lease in the form of rent or income allotment. The rent for 1-hm² land is 600-1 500 yuan; income allotment is 1:9 or 2:8 ac-

cording to the factors of land quality, distance and lease period and so on. Generally, this form is not very general in Datu.

Efficiency of forest resources management

Forestry development is obvious since forestry "three determinations", especially since 1990. The efficiencies manifest in the following aspects: first, many kinds of forest management have been aroused; second, forest area increased obviously, especially area of artificial Chinese fir, increased from 200 hm² in 1984 to 1310 hm² in 1999; third, timber market run actively; fourth, the action that growing stock after it is assessed raise a mortgage to loan from banks to develop economy or invest the foundational construction, is brisk very much.

Strategies of NFPP in minority community

While human being promote the development of historic civilization with science and technique, some negatives also produce unavoidably. For example, lots of past development were on the basis of wantonly plundering natural resource and resulted in today's global environment crisis, and conversely threaten the environment for human being existence seriously. Nowadays, people are thinking back the past actions, meanwhile also taking active methods to improve ecological environment. NFPP is not only the strategic shift to face the overdrain of natural forest resource in China, but also an important contribution to sustainable development of world ecology and economy.

Many minorities have lived in the forest areas of high mountain for generations, such as Miao, Shui and Yi people etc., and lots of these forest areas located in major protection area of natural forest protection, so it is an important guarantee to carry out NFPP smoothly to efficiently handle the relation between protection and utilization and to enhance economic development of minority community. Now, with the case of present forest resource management in Datu Village, the strategies of natural forest protection in collective forest district of minority community are analyzed as follows.

Maintaining forestry policies stability

Like other forest district in China, in 1980, forestry three determinations were carried on in Datu, and then some new, national forestry policies also were propagated. However, the villagers didn't begin to pay attention to forestry and to afforest broadly in scale until 1990. Before 1990, the area of Chinese fir was less than 200 hm². Up to 1999, the area had reached 1 310 hm². According to investigation, there were many factors contributed to the development

scale, such as government support, forestry technician help and so on, but quite an important factor was that villagers realized that present national forestry policies are very stable, and do not change frequently like the past, after almost a 10-year period of wait-and-see. Changes of understanding and great profit of Chinese fir make villagers enhance investment in afforestation. Villagers know that natural forest protection is a good affair either for nation or for people, and stable forestry policies are the basic guarantee for forestry-expanded reproduction, increase of forest area and implement of NFPP.

Improvement of living way and condition in community

Up to now, there has not been electric power in Datu. Because of historic reason and limited conditions, villagers still use broad-leaf trees as fuel timber for cooking, lighting and warming. On the basis of calculation, each household may use up 40 kg of fuel timber every day. In winter, some people set firing all day and night in house. And all of fuel timber almost comes from natural broad-leaf forest.

After making an investigation, some scientists emphasized that nation must take the measures to improve the living way and condition in minority, otherwise, they will affect the efficiency of natural forest protection.

Promotion and development of traditional forestry consciousness

Traditional forest culture has a history of thousands of years and rich contents in minority community in China. Some legends between Miao ancients and forest hand down in Datu, such as the legend of sacred forest and sacred tree, and can explain why Miao villagers actively take part in afforesting and protecting forest consciously. Miao leader in Datu also has a great role in forest management, protection and development.

Good minority custom and tradition constitute the important parts of group characteristic, and have an active role in forest protection (Zhang *et al.* 1999). So, when we emphasize the significance of scientific forestry management, also lead and develop the traditions, meanwhile emphasizing natural forest protection is concrete reflection of minority tradition and custom.

Improving educational condition and enhancing national quality

Datu village only carries on a 4-year education system. In many of natural hamlets, pupils must take two hours for going to the Datu primary school, and phenomena of discontinuing education often occurs.

There are only 2 villagers who finished high school and most young women are illiterates in Datu. Poor education makes them unknowing of outside world.

It is necessary and urgent to take the methods to improve the educational conditions and enhance minority quality. Only by these, have the villagers mastered scientific knowledge, they can develop the mountainous regions, make full use of potential resource, and promote economic development of community, so that the natural forest protection could be guarantee.

Conclusion

In this paper, with the case of forest management in Datu Village, just some strategies of NFPP in collective minority forest district are studied. In fact, NFPP is a great systematic project that involves many aspects in forest district society. Although focal point district of NFPP is in state forest regions, development of collective forest farm and collective forestry has a giant role in systematic elaboration of the efficiency of NFPP. Meanwhile, in order to protect environment and develop forestry, local governments in collective districts also raised the policy to protect natural forest in succession. These need us to approach actively the policies and strategies of natural protection in collective forest district, especially in minority community, to coordinate and handle the relation among minorities and inside minority very well, to respect the habits and customs of the minority nationalities. With reasonable policies, these above shall smoothly push the NFPP forward in collective forest district.

Forest resource management in collective forest district has formed some mature management system through the efforts of the last 20 years, and especially in minority community, forestry development is an important way for community to get rid of poverty and development economy. So, with natural forest protection, we must make a further study on characteristics of minority community, and continuously seek positive operation of management system and the way of coordinating development, in order to guarantee the enduring and stable development of NFPP.

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